

U.S. Patent Application Serial No. 10/533,286
Response filed September 14, 2007
Reply to OA dated June 14, 2007

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Previously Presented): A compressor comprising a compression mechanism for compressing working fluid, a rotational motor including a stator, a rotor for driving said compression mechanism and a container for accommodating said compression mechanism and said rotational motor, in which the compressed working fluid flows from said compression mechanism to said rotational motor, wherein a space between said compression mechanism and said rotational motor is defined by a porous member through which the working fluid passes, and a central portion of said porous member is thicker than an outer periphery of the porous member.

Claim 2 (Previously Presented): A compressor comprising a compression mechanism for compressing working fluid, a rotational motor including a stator, a rotor for driving said compression mechanism and a container for accommodating said compression mechanism and said rotational motor, in which said container includes a discharge pipe on the opposite side of said compression mechanism with respect to said rotational motor, and the compressed working fluid flows from said rotational motor to said discharge pipe, wherein a space between said compression mechanism and

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said rotational motor is defined by a porous member through which the working fluid passes, and a central portion of said porous member is thicker than an outer periphery of the porous member.

Claim 3 (Canceled)

Claim 4 (Previously Presented): A compressor according to claim 1 or 2, wherein said porous member is mounted on an element other than said rotor and a shaft fixed to said rotor.

Claim 5 (Original): A compressor according to claim 4, wherein said compression mechanism includes a bearing member which supports said shaft, and said porous member is mounted on said bearing member.

Claim 6 (Original): A compressor according to claim 5, wherein said bearing member includes a projection provided on a side of said rotational motor, and said porous member is mounted on a groove formed in an outer peripheral surface of said projection.

Claim 7 (Original): A compressor according to claim 4, wherein said porous member is mounted on an inner wall of said container.

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Claim 8 (Original): A compressor according to claim 4, wherein said compression mechanism includes a bearing member which supports said shaft and an auxiliary bearing member which supports said shaft together with said bearing member from both sides of the shaft on the opposite side from the bearing member with respect to said rotor.

Claim 9 (Previously Presented): A compressor according to claim 1 or 2, wherein said porous member is made of porous material selected from the group consisting of: porous metal and porous resin.

Claim 10 (Original): A compressor according to claim 9, wherein said porous member is formed into a plate-like shape.

Claim 11 (Original): A compressor according to claim 9, wherein a central portion of said porous member is thicker than an outer periphery of the porous member.

Claim 12 (Previously Presented): A compressor according to claim 1 or 2, wherein said porous member is made of mesh selected from the group consisting of: metal thin wire, glass wool and ceramic wool.

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Claim 13 (Original): A compressor according to claim 12, wherein said mesh is enveloped by a plate member having an opening.

Claim 14 (Canceled)

Claim 15 (Previously Presented): A compressor according to claim 1 or 2, wherein said porous member is made of porous plate selected from the group consisting of: honeycomb and punching metal.

Claim 16 (Original): A compressor according to claim 15, wherein said porous plate comprises a plurality of porous plates laminated on one another.

Claim 17 (Original): A compressor according to claim 15, wherein said porous plate has holes, and a diameter of a hole closer to a central portion of said porous plate is smaller than that of a hole closer to an outer periphery of the porous plate.

Claim 18 (Previously Presented): A compressor according to claim 1 or 2, wherein said porous member is made of non-magnetic material.

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Claim 19 (Previously Presented): A compressor according to claim 1 or 2, wherein said porous member is made of insulative material.

Claim 20 (Previously Presented): A compressor according to claim 1 or 2, wherein carbon dioxide is used as the working fluid.

Claim 21 (Previously Presented): A compressor according to claim 1 or 2, wherein said compression mechanism is of a rotary type.

Claim 22 (Previously Presented): A compressor according to claim 1 or 2, wherein said compression mechanism is of a scroll type.

Claim 23 (Previously Presented): A compressor comprising a compression mechanism for compressing working fluid, a rotational motor including a stator, a rotor for driving said compression mechanism and a container for accommodating said compression mechanism and said rotational motor, in which the compressed working fluid flows from said compression mechanism to said rotational motor, wherein a space between said compression mechanism and said rotational motor is defined by a porous member through which the working fluid passes, said porous member is made of porous plate selected from the group consisting of: honeycomb and punching metal, and

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said porous plate has holes, a diameter of a hole closer to a central portion of said porous plate is smaller than that of a hole closer to an outer periphery of the porous plate.

Claim 24 (Canceled)

Claim 25 (Canceled)

Claim 26 (Previously Presented): A compressor comprising a compression mechanism for compressing working fluid, a rotational motor including a stator, a rotor for driving said compression mechanism and a container for accommodating said compression mechanism and said rotational motor, in which said container includes a discharge pipe on the opposite side of said compression mechanism with respect to said rotational motor, and the compressed working fluid flows from said rotational motor to said discharge pipe, wherein a space between said compression mechanism and said rotational motor is defined by a porous member through which the working fluid passes, said porous member is made of porous plate selected from the group consisting of: honeycomb and punching metal, and said porous plate has holes, a diameter of a hole closer to a central portion of said porous plate is smaller than that of a hole closer to an outer periphery of the porous plate.

Claim 27 (Canceled)

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Claim 28 (Canceled)

Claim 29 (New): A compressor comprising a compression mechanism for compressing working fluid, a rotational motor including a stator, a rotor for driving said compression mechanism and a container for accommodating said compression mechanism and said rotational motor, in which the compressed working fluid flows from said compression mechanism to said rotational motor, wherein a space between said compression mechanism and said rotational motor is defined by a porous member through which the working fluid passes, and a central portion of said porous member is thicker than an outer periphery of the porous member,

wherein said porous member is made of mesh selected from the group consisting of: metal thin wire, glass wool and ceramic wool, and

wherein a central portion of said mesh is higher density than that of an outer periphery of the mesh.

Claim 30 (New): A compressor comprising a compression mechanism for compressing working fluid, a rotational motor including a stator, a rotor for driving said compression mechanism and a container for accommodating said compression mechanism and said rotational motor, in which said container includes a discharge pipe on the opposite side of said compression mechanism with respect to said rotational motor, and the compressed working fluid flows from said rotational motor to said discharge pipe, wherein a space between said compression mechanism and said rotational

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motor is defined by a porous member through which the working fluid passes, and a central portion of said porous member is thicker than an outer periphery of the porous member,

wherein said porous member is made of mesh selected from the group consisting of: metal thin wire, glass wool and ceramic wool, and

wherein a central portion of said mesh is higher density than that of an outer periphery of the mesh.

Claim 31 (New): A compressor according to claim 23, wherein the porous member is mounted on an upper bearing member, said bearing member being said compression mechanism and said rotational motor.

Claim 32 (New): A compressor according to claim 26, wherein the porous member is mounted on an upper bearing member, said bearing member being said compression mechanism and said rotational motor.